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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,586	01/21/2004	Makoto Koike	14312.3US01	4286

23552 7590 06/30/2005

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EXAMINER	
LAU, HOI CHING	
ART UNIT	**PAPER NUMBER**
2636	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/761,586	KOIKE ET AL.	
	Examiner	Art Unit	
	Hoi C. Lau	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1- 21 have been examined.

Claim Objections

2. Claims 17 and 20 are objected to because of the following informalities:

Both claims are not clearly defined. One of ordinary skill in the art would interpret the first and second sound emitters are the same type of emitter according to claims 15 and 18.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 4-9, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by King et al. (U.S. 6,501,374).

Regarding **Claim 1**, King's system discloses:

A sound emitter for emitting a warning sound (column 3, lines 67);

A seat belt sensor for detecting a fastened state of a seat belt (column 3, lines 44-47);

A vehicle speed sensor (column 3, lines 59-62);

An electronic controller for receiving a detection signal from seat belt sensor and a vehicle speed signal from vehicle speed sensor, and activating sound emitter according to detection signal from seat belt sensor and vehicle speed signal from vehicle speed sensor wherein electronic controller is adapted to activate sound emitter when a vehicle speed is higher than the threshold level and seat belt is not fastened, and sound emitter cyclically alternating between a sound emitting state and a silent state when activated (column 3, lines 35-47 and column 4, lines 17-67 and column 5, lines 1-7).

Regarding **Claim 4,** King's system teaches an alarm light wherein electronic controller lighting up alarm light substantially continually when said sound emitter is activated (column 4, lines 1-2 and column 4, lines 27-33).

Regarding **Claim 5,** King's system teaches an alarm light wherein electronic controller lighting up alarm light only in each sound emitting state of said sound emitter (column 4, lines 56-61).

Regarding **Claim 6,** it teaches a panel display wherein electronic controller displaying a seat belt warning on said panel display substantially continually when sound emitter is activated (Figure 1 and column 4, lines 2-3 and column 4, lines 27-33).

Regarding **Claim 7,** it teaches a panel display wherein electronic controller displaying a seat belt warning only in each sound emitting state of sound emitter (Figure 1 and column 4, lines 2-3 and column 4, lines 56-61).

Regarding **Claim 8,** it teaches sound emitter emits sound intermittently during each sound emitting state (column 4, lines 54-56).

Regarding **Claim 9,** it teaches an alarm light wherein electronic controller blinking alarm light in synchronism with the intermittent sound emitted from sound emitter (column 4, lines 56-59).

Regarding **Claim 11,** it teaches sound emitter is activated when a vehicle speed continues to be higher than the threshold level for a prescribed time period and seat belt is not fastened (column 4, lines 37-67 and column 5, lines 1-7).

Regarding **Claim 12,** it teaches sound emitter is also activated for a prescribed time period after an ignition switch is turned on if seat belt is not fastened (column 4, lines 17-36).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. **Claims 2 and 3** are rejected under 35 U.S.C. 103(a) as being unpatentable over King et al. (U.S. 6,501,374).

King's system meets all the limitation of claims except it fails to show the silent state has lasts for a period of at least 3 or 12 seconds each time.

However King's system teaches the audible indicator transmits an intermittent chime. One of ordinary skill in the art would know the duration of the alarm signal could choose to be arbitrary such as 3-12 seconds base on user preference.

5. **Claim 10** is rejected under 35 U.S.C. 103(a) as being unpatentable over King et al. (U.S. 6,501,374) in view of Mutter et al. (U.S. 5,483,221).

King's system meets all the limitation of claims except it fails to show electronic controller is adapted to activate only after a prescribed waiting period.

However, Mutter's system discloses a delay time which provide a short period of silence (column 2, lines 44-67).

It would have been obvious to one of ordinary skill in the art at the time to incorporate Mutter's system with King's because it would provide a waiting period after the detection before alarm criteria so to prevent false alarm momentary across the threshold and cause interference of alarm detection.

6. **Claims 13 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over King et al. (U.S. 6,501,374) in view of Slepian et al. (U.S. 5,954,781).

King's system meets all the limitation of claims except it fails to show the use of sensing a second speed threshold.

However, Slepian's system disclosed activated state of sound emitter is interrupted when vehicle speed has dropped below a second threshold level which is lower than first threshold level, and reactivate when vehicle speed has exceeded first threshold level. It also shows activated state of sound emitter is interrupted upon completion of the ongoing sound emitting state (Figure 2A and 2B).

It would have been obvious to one of ordinary skill in the art at the time to include a second threshold detection in King's system because it would help to prevent frequently across and activate between the alarm activation thresholds such as frivolous alarm.

7. Claims 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over King et al. (U.S. 6,501,374) in view of Menig et al. (U.S. 6,289,332).

Regarding **Claims 15 and 16,** King's system meets all the limitation of claims except it fails to show an alarm state having a higher priority over other sensing states.

Menig's system discloses a sensor for detecting an alarm state having a higher priority than other detection wherein electronic controller being adapted in such a manner that activated state of sound emitter is superseded by an activation of sound emitter in a pattern different from sound emitting state of sound emitter as an interrupt routine as soon as said higher priority alarm state is produced, and that activation of sound emitter is resumed as a continuation of a preceding state of sound emitter as soon as higher priority alarm state is canceled (column 11, lines 36-50).

Menig is silent on the alarm state having a higher priority than a failure to wear a seat belt, however, it is suggested that the prioritization scheme can modify for a variety of different electronic subsystems and sensors onboard of vehicle base on manufacturer preference (column 11, lines 8-17).

It would have been obvious to one of ordinary skill in the art at the time to implement a prioritization scheme into King's system because it would help the vehicle

driver to distinguish the degree of emergency of alarm and resolve the conflict based on the priority of each alert to prevent overload on display.

Regarding **Claim 17**, the combination meets all the limitation of claims and Menig's system shows the alerts of both higher and lower priority signals use the same sound emitter (figure 1 and column 3, lines 27-29 and column 8, lines 66-67 and column 9, lines 1-20 and table 1).

Regarding **Claims 18 and 19,** King's system meets all the limitation of claims except it fails to show an alarm state having a lower priority over other sensing states.

Menig's system discloses a sensor for detecting an alarm state having a lower priority than a failure to wear a seat belt where electronic controller being adapted in such a manner that a second sound emitter is activated in a pattern different from sound emitting state of sound emitter only during said silent state of sound emitter when lower priority alarm state is produced (column 11, lines 36-50).

See claims 15 and 16 for rejection.

As to **Claim 20,** it is claim corresponding to an apparatus claim 17 and it is therefore rejected for the similar reasons set forth in the rejection of claim 17.

Regarding **Claim 21**, the combination meets all the limitation of claims and Menig's system shows a panel display where electronic controller displaying on panel display intermediate level warning in each sound emitting state of sound emitter and a lower priority warning in each silent state of said sound emitter when a vehicle speed is higher than a first threshold level, said seat belt is not fastened and said lower priority warning state is produced at the same time by the consideration of claim 18 and display

function by consideration of Menig's system (column 3, lines 27-31 and column 9, lines 50-67).

Since King's system teaches both visual and audible indication when a vehicle speed is higher than a threshold level while seat belt is not fastened, it would have been obvious to one of ordinary skill in the art at the time to elaborate Menig's display function with King's because it would provide supplement indication for the vehicle driver.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yagihashi (U.S. 5,648,755) teaches a display system having a predetermined area which it's controller unit having stored therein a plurality of predetermined indication mode to shifted positions given higher priorities and arranged in predetermined order. Ying (U.S. 6,037,862) shows an automobile over speed warning system include speed sensor for sensing the rate at which an automobile is traveling and speed selectors for receiving an input from the automobile driver indicating a top speed which the driver seeks not to exceed. Chinigo et al. (U.S. 6,556,903) teaches a safety system and method for vehicle in which sensors are associated with each seat if a person is occupying the seat and if the seat belt is buckled. A display, within the vision of the driver, shows the condition of each seat. Daly et al. (U.S. 6,127,944) teaches a hazard alert device for aircraft prioritizes various alerts according to predefined criteria. The device enables more optional alerting of hazardous

conditions than a system of separate independent and discrete devices. Jorgensen (U.S. 5,272,464) teaches a system provided a central vehicle resource management system including vehicle status sensing apparatus for generating a plurality of vehicle status signals.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoi C. Lau whose telephone number is (571)272-8547. The examiner can normally be reached on M- F 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (571)272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HCL

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